the County and Milwaukee under contract with two transit operators, the Milwaukee County Transit System and Wisconsin Coach Lines. The City of Waukesha Transit System Utility provides fixed-route local transit service within the City of Waukesha and between the City and major traffic generators located outside the City.

The following agency responsibilities are recommended for implementation of the proposed transit system plan:

- 1. It is recommended that Waukesha County continue to provide rapid-transit and express transit services within the County through agreements with Milwaukee and Washington Counties for the joint provision of rapid-transit service in the northwest travel corridor and agreements with Milwaukee County for the joint provision of rapid-transit services in the east-west and southwest travel corridors.
- 2. It is recommended that Waukesha County, working cooperatively with the local units of government in the County, implement the local transit service recommendations of the plan, including the provision of local transit service in the eastern portion of the County and between the economic activity centers along IH 94.
- 3. It is recommended that the City of Waukesha Transit System Utility continue to provide local fixed-route transit service in the City of Waukesha and adjacent areas. It is further recommended that, over time, as the City transit system is increasingly called upon to serve areas beyond the city limits, the City, in conjunction with Waukesha County, undertake a cooperative study to determine the manner in which the transit function can be most cost-efficiently administered, with the transfer of the local transit function from the City to the County among the options to be considered.
- 4. It is recommended that the Wisconsin Department of Transportation, the Waukesha County Board of Supervisors, and the Regional Planning Commission cooperatively conduct the proposed major investment study regarding commuter-rail passenger service as an alternative to bus-on-freeway or bus-on-busway rapid-transit service in the Milwaukee to Oconomowoc corridor.

## **SUMMARY**

This chapter has presented an arterial street and highway system plan and a public transit system plan intended to serve Waukesha County through the year 2010. It has also described additional functional improvements to the arterial street and highway system and additional public transit services which may be expected to be required to serve the County under full development of the County land use plan. The key features of the highway and transit system plans are described below.

- 1. The recommended year 2010 arterial street and highway system plan for the County consists of 774 center-line miles of arterial facilities. This represents an increase of 58 center-line miles over the arterial system as it existed in 1991, and includes 26 miles of new facilities proposed to be constructed and 32 miles of existing land-access and collector streets proposed to be converted to arterial facilities by the year 2010. Of the proposed 774-mile system, 26 miles would be constructed as entirely new facilities and 134 miles of existing facilities would be widened to provide additional travel lanes. Under the plan, then, the capacity of the arterial street system in the County would be expanded, through widening or new construction, for a total of 160 miles, nearly a 21 percent expansion of the 774-mile system. The balance of the proposed system, 614 miles, consists of existing facilities which would be preserved through resurfacing or reconstruction, as appropriate.
- 2. Total capital costs attendant to the system, including land acquisition costs, would approximate \$694 million in 1994 dollars. The State trunk highways account for \$393 million, or 57 percent of the capital cost; the County trunk highways account for \$243 million, or 35 percent; and the local trunk highways account for \$58 million, or 8 percent.
- 3. Under the year 2010 plan, State trunk highways would account for about 230 miles, or 30 percent of the total system mileage within the County; County trunk highways would account for about 413 miles, or 53 percent; and local trunk highways would account for about 131 miles, or 17 percent.
- Growth in the County beyond the year 2010 envisioned under the buildout land use plan

would necessitate arterial street and highway improvements beyond those recommended in the year 2010 arterial street and highway system plan. A total of 108 miles of facilities included in the 2010 arterial system plan, including 16 miles of freeway and 92 miles of standard arterial streets, would have to be widened to accommodate the buildout conditions. In addition, the arterial system would have to be expanded by including Guthrie Road between Sunset Drive and STH 164, by extending Springdale Road from Capitol Drive (STH 190) to Lisbon Road (CTH K), and by constructing an arterial highway between STH 59 and CTH ZZ, west of North Prairie. These three additions would add nine center-line miles to the arterial system, resulting in a buildout plan arterial system mileage of 783 miles. Under the buildout plan, the capacity of the arterial system would be expanded through widening or new construction of a total of 111 miles, an approximately 14 percent expansion of the 774-mile system recommended for the year 2010 stage of the plan. The facility construction costs, exclusive of right-of-way acquisition costs, attendant to the improvements required to accommodate planned urban growth in the County after the year 2010, that is, costs over and above those envisioned under the 2010 transportation plan, would approximate \$230 million. The total cost may be expected to be considerably greater, depending on the extent to which the proposed street widenings and other improvements require additional right-of-way acquisition.

5. As a result of the increased traffic volumes attendant to full development of the County land use plan, the level of service provided by the East-West Freeway (IH 94) between STH 16 and the Waukesha-Milwaukee County line may be expected to decline significantly. Currently, moderate congestion, with restrictions on lane-changes and reductions of speed of 5 to 10 miles per hour, occurs in both directions on IH 94 between STH 18 and the Milwaukee-Waukesha County line during morning and afternoon peak-traffic hours, except on eastbound IH 94 east of Moorland Road, where severe congestion occurs during the morning peak hour. Under the 2010 stage of the plan, during both morning and afternoon peak hours, severe congestion, with reduced speeds of 35 to 45 miles per hour, would be expected between STH 16 and USH 18 and extreme congestion, with stopand-go driving and speeds of 30 miles per hour or less, may be expected between USH 18 and the Milwaukee-Waukesha County line. Under full development conditions, during morning and afternoon peak hours, extreme congestion may be expected on the entire segment of IH 94 between STH 16 and the Milwaukee-Waukesha County line.

6. Responsibility for implementation of the arterial street and highway system plan rests with the Wisconsin Department of Transportation: the Waukesha County Board of Supervisors and its Public Works Committee; and the city councils, village boards, and town boards and their respective boards of public works. The aforementioned agencies and units of government should cooperatively seek implementation of the jurisdictional transfers recommended in the plan and proceed with preliminary engineering, right-ofway acquisition, and facility construction in accordance with the plan. Waukesha County should amend its highway width map to reflect the rights-of-way of planned State and county trunk highways. Cities, villages, and towns should approve the revised county highway width map and adopt local official maps showing thereon planned State, county, and local trunk highway facilities. The County, city, village, and town governments should exercise their land division control authority to prevent the encroachment of new land divisions into areas needed for the rightsof-way of planned arterial facilities.

Implementation of the arterial street and highway system plan over the next decade should emphasize right-of-way acquisition, engineering, and construction of those facilities called for by the year 2010. During this time, however, efforts should be made to protect from urban encroachment the rights-of-way of arterial facilities needed under the buildout scenario.

7. Under the recommended year 2010 transit system plan, rapid-transit service would be provided in the County by buses operating over freeways, providing service between outlying areas of the County and Milwaukee. Service would be provided in both directions during peak periods. The number of miles and

hours transit vehicles would operate on an average weekday would be increased. Initially, all service would be provided by buses operating over the freeway system, with service connections on selected surface arterial streets and highways. Ultimately, depending upon the results of the East-West Corridor Transit Study currently being conducted by the Wisconsin Department of Transportation, the rapid-transit service in the eastern portion of the County could be provided by buses operating over busways within, or parallel to, the IH 94 freeway corridor. The plan also recognizes the potential of establishing commuter-rail passenger service as an alternative to bus-on-freeway or bus-on-busway rapidtransit service in the Milwaukee-Oconomowoc corridor. The plan recommends that the commuter-rail passenger service potential be evaluated in a "major investment study" for this corridor.

- 8. Under the year 2010 transit system plan, express transit service in Waukesha County would be provided by buses operating with limited stops in mixed traffic over surface arterial streets and highways. The plan calls for one express transit route in the County, providing service between the City of Waukesha and Milwaukee.
- 9. Under the year 2010 transit system plan, local transit service would be provided through buses operating over arterial and collector streets, with frequent stops for passenger boarding and alighting. The plan proposes the continuation of local transit service in the City of Waukesha and in the Waukesha-Brookfield-Milwaukee corridor and the expansion of local transit service into medium-density residential areas on the east side of the County. Peak-period headways in the Waukesha urban area would be improved so that all routes would operate at 30 minute headways. The plan also envisions the provision of local transit service between certain economic activity centers along IH 94, including centers at STH 67, STH 83, and STH 164. Such service would facilitate circulation within those centers and would be linked to the rapid-transit system.
- In view of the relatively low density which would characterize much of the incremental development envisioned under the County

land use plan after the year 2010, it is anticipated that only minimal expansion of the transit service area and frequency proposed under the year 2010 plan would be feasible under plan buildout conditions. The modest additions to the transit network and service levels beyond those recommended in the year 2010 plan which may be expected to be warranted under buildout conditions consist of shuttle bus service which would link rapid-transit service stations to the larger and denser centers of population and employment growth in outlying areas.

11. Responsibility for implementation of the recommended transit system plan rests largely with Waukesha County and the City of Waukesha. It is recommended that Waukesha County continue to provide rapid-transit and express transit services within the County through agreements with Milwaukee and Washington Counties, as appropriate. It is also recommended that Waukesha County, working cooperatively with the local units of government in the County, implement the local transit service recommendations of the plan, including the provision of local transit service in the eastern portion of the County and within the economic activity centers along IH 94. It is recommended that the City of Waukesha Transit System Utility continue to provide local fixed-route transit service in the City of Waukesha and adjacent areas. It is further recommended that, over time, as the City transit system is increasingly called upon to serve areas beyond the city limits, the City, in conjunction with Waukesha County, under take a cooperative study to determine the manner in which the transit function can be most cost-efficiently administered, with the transfer of the local transit function from the City to the County among the options to be considered. Finally, it is recommended that the Wisconsin Department of Transportation. the Waukesha County Board of Supervisors, the Regional Planning Commission cooperatively conduct the proposed major investment study regarding commuter-rail passenger service as an alternative to bus-on-freeway or bus-on-busway rapid-transit service in the Milwaukee to Oconomowoc corridor.

As indicated above, the recommended year 2010 transportation system plan proposes a significant

increase in the capacity of the arterial street and highway system in Waukesha County, including the construction or widening of approximately 160 miles of arterial facilities. Over one-half of the capacity expansion proposed through the year 2010 is required to address an existing backlog of needs. the results of deferring construction and widening projects, owing to inadequate capital investment in needed facilities. The buildout transportation system plan proposes a further significant increase in the capacity of the arterial street and highway system between the years 2010 and 2050, including the widening or new construction of an additional approximately 111 miles of arterial facilities. Financing the required system expansion may be expected to be increasingly difficult, particularly in view of the substantial capital outlay inherent in

preserving, through resurfacing and reconstruction, the existing system. However, if expansion needs are deferred, as they have been over the past 20 years, traffic congestion may be expected to become severe and widespread within the County.

Under the 2010 stage and buildout plans, the public transit system would continue to perform an important, albeit limited, role in the overall surface transportation system of the County. While substantial urban growth is envisioned in the County beyond the year 2010, only a limited expansion of the transit system may be expected to be feasible and warranted, given the relatively low density and dispersed nature of much of that incremental urban development.